

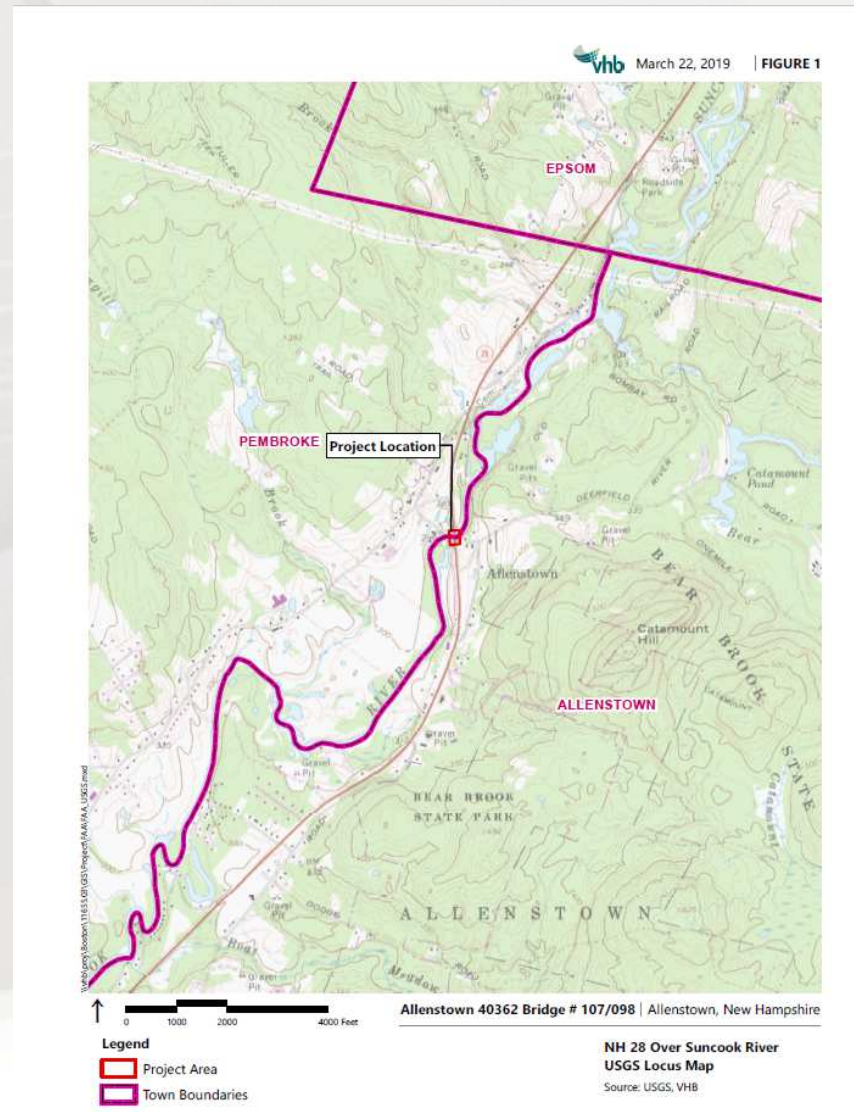
ALLENSTOWN-PEMBROKE 40362

NH Route 28 over Suncook River (Br. No. 107/098)

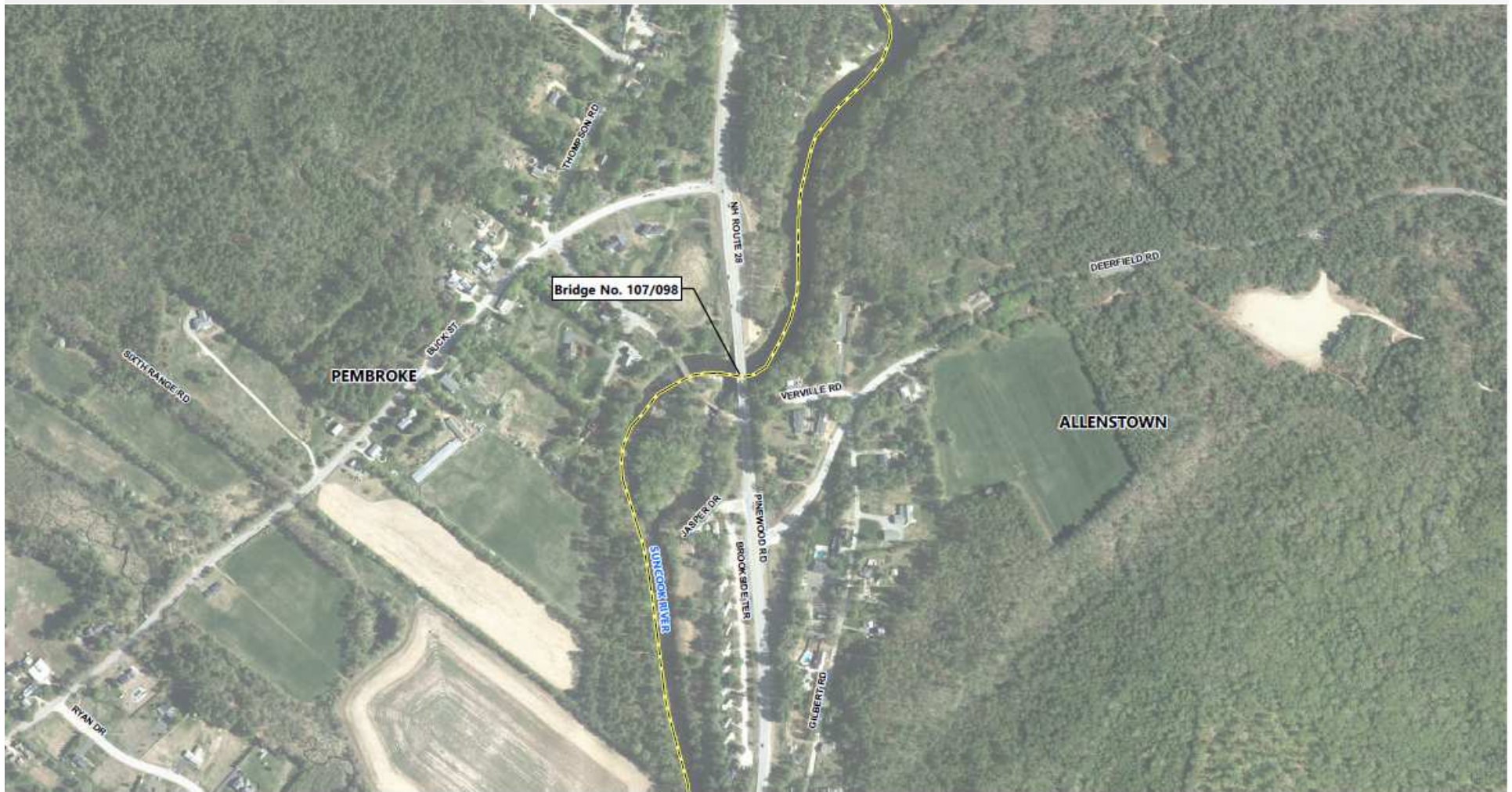
Public Officials Meeting



Project Location Map



Project Location Aerial Photo



Legend

 Town Boundary

Bridge No. 107/098

Allenstown, New Hampshire

Site Location Map

Source: VHB, GRANIT

Existing Bridge Information

NH Route 28 over Suncook River - Br. No. 107/098

- Built in 1958
- Rolled Steel Beams with a Reinforced Concrete Deck
- Reinforced Concrete Abutments on Spread Footings and Timber Piles
- 3 Spans: 65'-80'-65' (210'-0" total)
- Bridge Skew: 0°
- Travel Width: 27'-8"
- Face of Rail to Face of Rail Width: 39'-6"
- On State Red List in 2013

Site Photos



Looking North East, Upstream



View of Northern Span



View of Southern Span



View of South Approach



View of North Approach



Looking Southerly from Bridge

Existing Bridge Photos



Concrete Shoulder Condition



Northern Bridge Joint



Crack in Abutment Seat



Spall in Southern Abutment Seat



Abrasion at Pier Nose



Exposed Toe of Slope

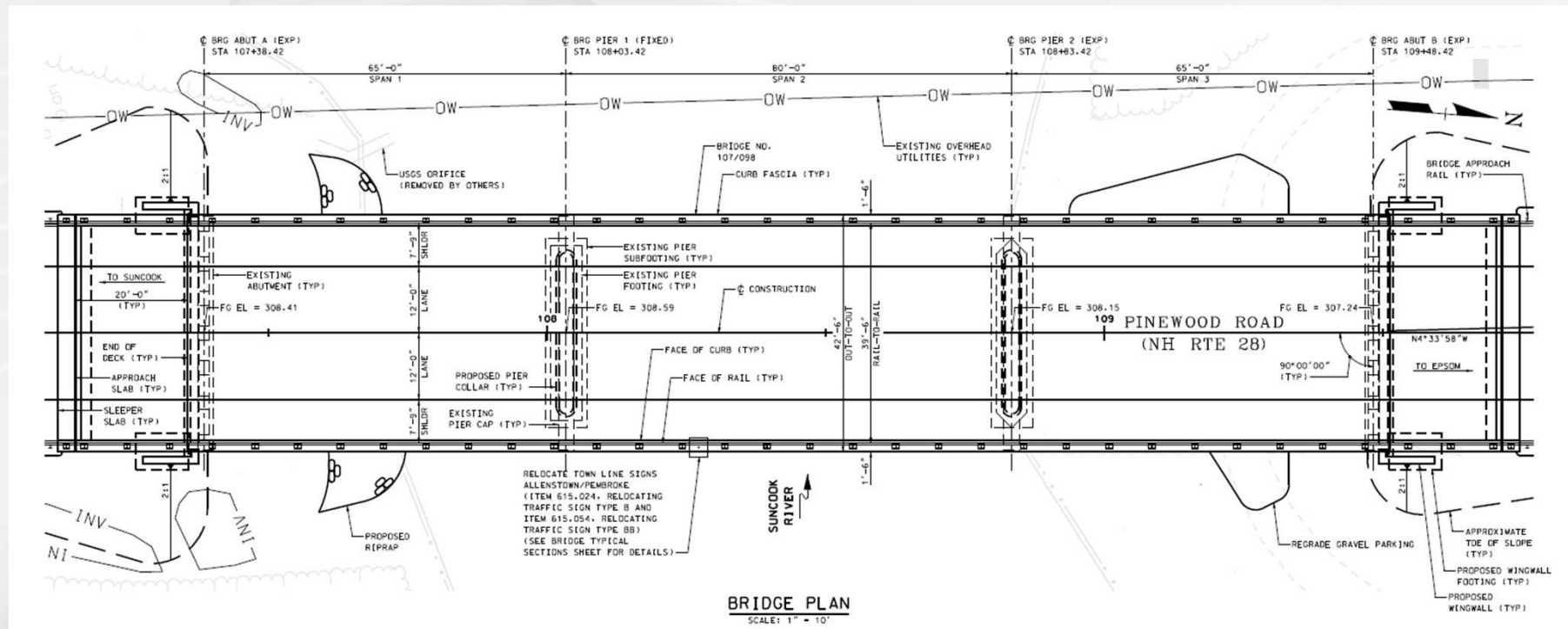
Existing Bridge Photos



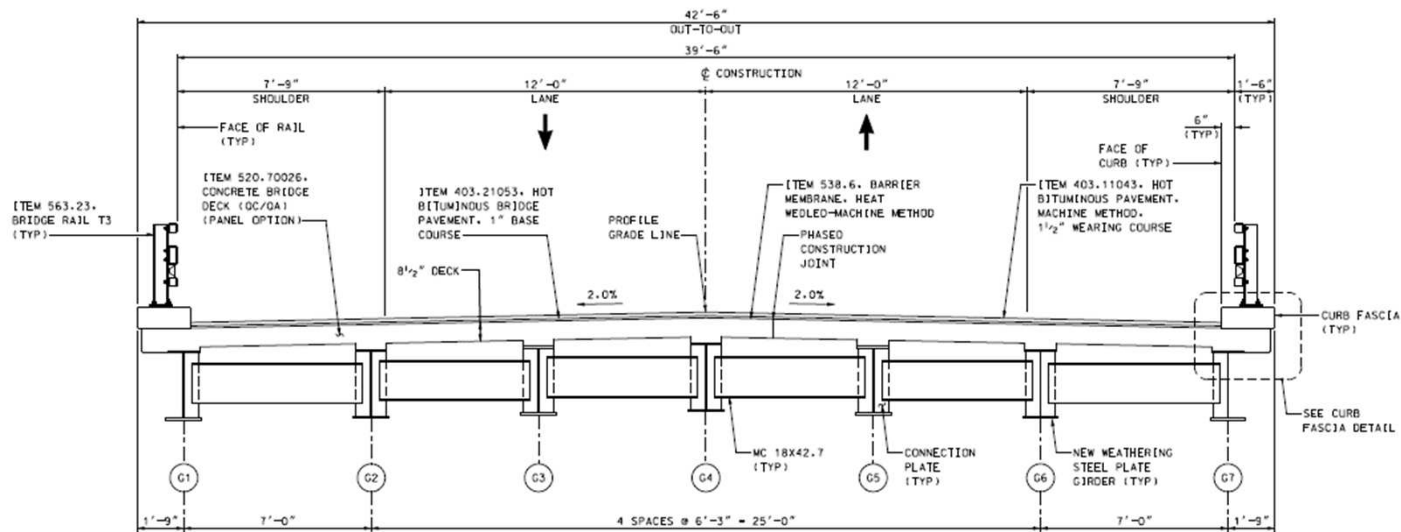
Superstructure Replacement

- Proposed weathering steel girders with composite concrete deck
 - Slight profile raise, no change in the width of the bridge
- Reinforced Elastomeric Bearings
- Approach Slabs
 - Pushes expansion joints off bridge (less future maintenance)
- Reconstruct deck ends
 - Removing abutment backwalls to bridge seat
- Substructure repairs
 - Address cracks and spalls
 - Concrete pier collars
- Riprap at Southern Abutment Toe of Slope

Proposed General Plan



SCALE: $\frac{3}{8}" = 1'-0"$



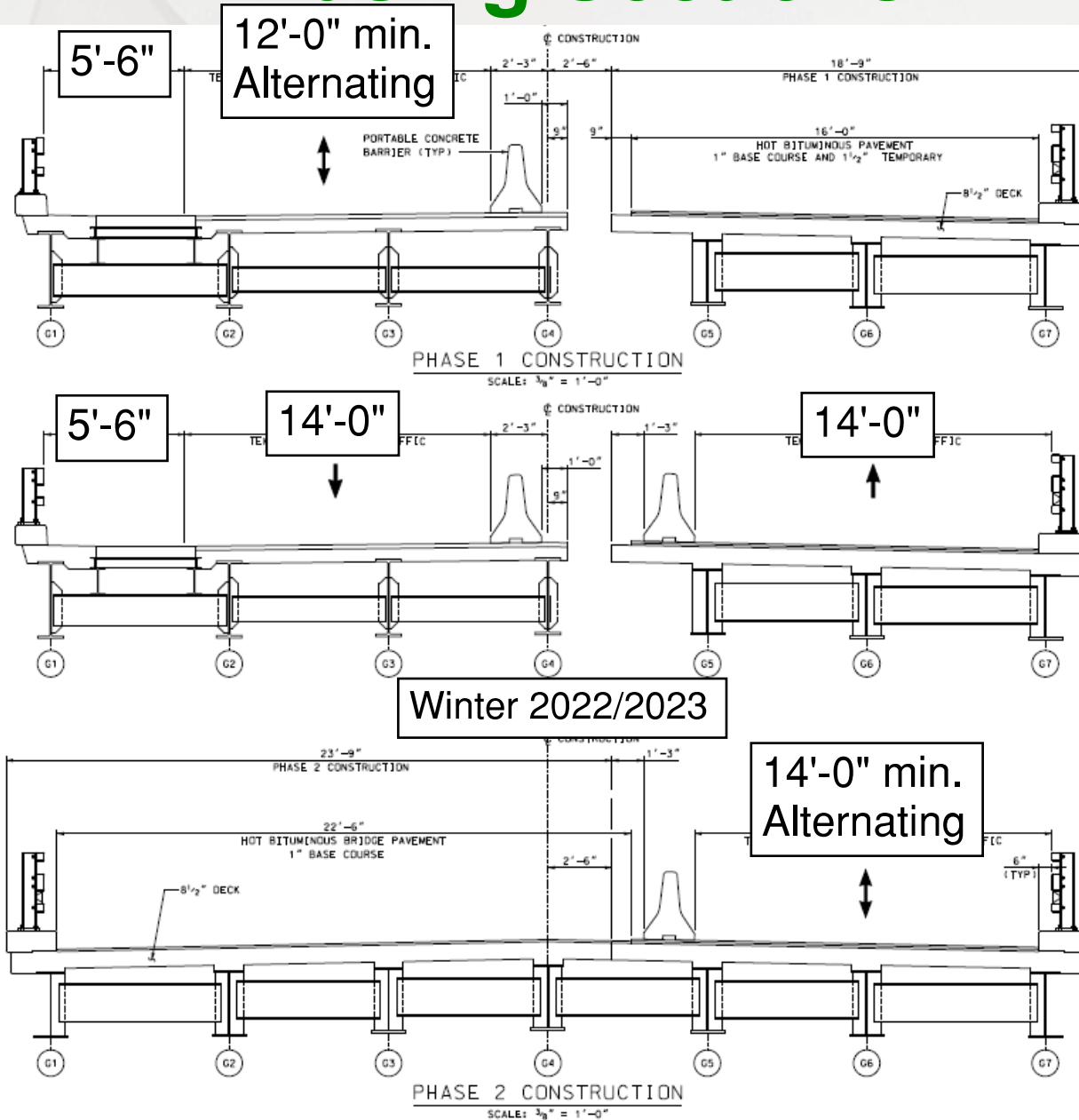
SCALE: $\frac{3}{8}" = 1' - 0"$

Maintenance of Traffic

Studied Two Alternatives

- Full closure with Detour (**Not Selected**)
 - 3-4 month closure
- Phased construction with one lane of alternating two-way traffic via signals (**Selected**)
 - 2 construction seasons (up to 2 years)

Phasing Sections



Maintenance of Traffic

Phased Construction

- Conventional construction elements
 - Less expensive
- Longer construction duration
- Average delay of 50-55 seconds
- Queue lengths
 - Average = 350 feet
 - Max = 525 feet

Queuing Plan



Cultural and Natural Resources

Cultural Resources

- No Cultural Resources have been identified currently
 - No Historic Properties Affected

Natural Resources

- Suncook River
- Endangered Species
 - Northern Long Eared Bat
 - Small Whorled Pogonia
 - Brook Floater (Mussels)
 - Mussel survey prior to construction
- Bridge in Zone AE Floodplain

Right-of Way

- Approximately 150 feet wide
 - Centered about roadway centerline
- No work beyond Right-of-Way anticipated

Funding

- Using NH Senate Bill 367 funds (State funds)
 - No Town Funds Needed
- Construction Funded in Fiscal Year 2021
- Anticipated Construction Cost at \$2.62M

Schedule

- Advertise Summer 2021
- G&C approval
- Order new Steel Girders (9-to-12-month lead time)
- Phase 1 Construction Begin April 2022
 - Two lanes open through winter
- Phase 2 Construction begins April 2023
- Construction Completion Summer 2023

Questions or Comments???

